



## Telecom Decision CRTC 2022-237

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Ottawa, 2 September 2022

*Public record: 8621-C12-01/08*

### **CISC Emergency Services Working Group – Changes to dates and direction set out in Telecom Decision 2021-210 regarding the implementation of handset-based location technology**

#### **Summary**

The Commission **approves** the CRTC Interconnection Steering Committee (CISC) Emergency Services Working Group's (ESWG) Consensus report ESRE0095 and the associated recommendations, with one modification. Specifically, the Commission requests that the ESWG file its final follow-up report by **16 December 2022**.

#### **Background**

1. The location of an emergency is a critical part of the information needed by public safety answering points (PSAPs) and first responders when assisting callers in emergency situations. The majority of 9-1-1 calls in Canada are made from wireless devices.
2. Advanced mobile location is a handset-based location protocol that was developed for smartphones. It can be used to find the location of individuals who make wireless 9-1-1 calls from smartphones that use either a Google Inc. (Google) Android operating system (Android devices) or an Apple Inc. (Apple) iOS operating system (iOS devices).
3. In Telecom Decision 2021-210, in response to the CRTC Interconnection Steering Committee (CISC) Emergency Services Working Group's (ESWG) *Handset-based Location Implementation in Canada*, Consensus report ESRE0092, the Commission directed the ESWG to implement handset-based location technology in Canada by 1 March 2022. The Commission also requested the ESWG and directed wireless service providers (WSPs) to complete several tasks by specific deadlines before the 1 March 2022 implementation date.
4. In September 2021, the ESWG submitted a consensus letter in which it requested that the Commission suspend the deadlines set out in Telecom Decision 2021-210. Specifically, the ESWG indicated that the deadlines for the implementation of next-generation 9-1-1 (NG9-1-1) Voice had been delayed and were now the same as those for the implementation of handset-based location technology. It submitted that

many of the same limited resources were required for both implementations, and that NG9-1-1 should be implemented first.

5. In Telecom Decision 2022-54, the Commission approved the request and requested that the ESWG submit a follow-up report recommending new timelines and other amendments as warranted for the implementation of handset-based location technology.

### **Consensus report ESRE0095**

6. On 10 March 2022, the ESWG filed *Proposed Changes to Dates and Direction in Telecom Decision CRTC 2021-210*, Consensus report ESRE0095. In the report, the ESWG submitted that it was finalizing a proof of concept (PoC), to be completed in August 2022.
7. The ESWG submitted that after Telecom Decision 2021-210 was published, it created a PoC subgroup to develop a comprehensive list of activities and timelines. One of the key follow-up items relates to a concern flagged by Apple during the proposed handset location validation process, where a good locate could be dropped due to an improperly configured cell site. The ESWG determined that this same issue could impact location calculations for wireless Phase II Enhanced 9-1-1, and indicated that it needs to investigate further before it can report on the specifics of the issue.
8. The ESWG also identified a new issue with the direction provided in paragraph 44 of Telecom Decision 2021-210 for WSPs to enter into an agreement with Google. Google representatives advised that the company would only sign agreements with the aggregators to which it sends handset location data in Canada. The proposed Canadian aggregators, subject to completion of the PoC, are Bell Canada and TELUS Communications Inc. (TCI).
9. The ESWG submitted that it has developed a detailed PoC plan to inform and guide the next steps of implementing handset-based location technology in Canada. It includes three high-level objectives:
  - determining whether the Apple handset location validation process is required;
  - executing the Apple and Google PoC activities; and
  - finalizing the configuration requirements for Apple and Google handset-based location technology in Canada, and including them in a final follow-up report to be filed by 13 October 2022.

10. In light of the above, the ESWG made the following recommendations:

- that the Canadian handset-based location technology implementation date should continue to be suspended until after the PoC is completed in August 2022; thereafter, the ESWG will file a final follow-up report by 13 October 2022 with a new proposed implementation date;
- that the direction set out in paragraph 44 of Telecom Decision 2021-210 (which is applicable to both the aggregators and WSPs), be suspended until the ESWG files the final follow-up report, which will detail the proposed obligations for all applicable stakeholders; and
- that the question of whether Saskatchewan Telecommunications (SaskTel) should be a third Canadian aggregator be addressed in the final follow-up report.

11. The ESWG also identified one matter for further consideration: to determine if a baseline cell data accuracy criterion is required for Canada. Misconfigured cell sites or sectors can result in the delivery of inaccurate emergency location information. Tools are available to undertake regular testing to identify misconfigured sites and repair them. The ESWG indicated that it would assess whether these tools and automated processes should be mandated and the results reported annually to confirm proper configuration of cell sites.

### **Commission's analysis**

12. The Commission is of the view that there was appropriate stakeholder representation in developing the consensus report and recommendations, and that the consensus report is within the defined scope of the project set out in *Wireless Phase II Location Accuracy Requirements in Canada*, Task Identification Form [TIF] ESTF0069 (ESTF0069), which led to the consensus report.

13. With regard to the ESWG's first recommendation, a PoC to execute Apple and Google activities is needed to test and inform on the transmission of location information related to the implementation of handset-based location technology in Canada, because it should increase the likelihood of the successful launch of the technology. This is an important project that will affect the safety of Canadians and it is crucial to have state-of-the-art planning and testing as part of it.

14. Regarding the ESWG's second recommendation, the direction in paragraph 44 of Telecom Decision 2021-210 for aggregators and WSPs to enter into agreements with Apple and Google should continue to be suspended until after the ESWG's final follow-up report is filed. The information contained in the report will help guide all stakeholders on the proposed obligations and lay out the foundations for the agreements between Apple and Google and the appropriate aggregator or WSP.

15. With respect to the third recommendation, it will be important to determine whether SaskTel should be a third aggregator, in addition to Bell Canada and TCI, to

determine the potential impact on the reliability and redundancy of the aggregation model. As discussed above, Google submitted that it would execute agreements only with aggregators to whom location-based data is sent in Canada.

16. The Commission is aware that the planned completion date of negotiations with Apple and Google has passed. Therefore, the proposed deadline for the submission of the ESWG's final follow-up report should be modified to ensure sufficient time to complete analysis of the PoC and documentation of the subsequent results and associated recommendations.
17. Regarding the additional matter the ESWG identified for consideration – whether a baseline cell data accuracy criterion is required for Canada – the Commission is of the view that this matter is within the scope of TIF ESTF0069 and that the information will be important for future decisions related to handset-based location technology.

## Conclusion

18. In light of all the above, the Commission **approves** Consensus report ESRE0095 and the associated recommendations, with one modification.
19. In particular, the Commission
  - determines that the implementation date for Canadian handset-based location technology, approved in Telecom Decision 2021-210, will continue to be suspended until after the PoC is completed and the ESWG files its final follow-up report;
  - requests that the ESWG file its final follow-up report by **16 December 2022**;
  - suspends, until further notice, the direction in paragraph 44 of Telecom Decision 2021-210 for aggregators and WSPs to enter into agreements with Apple and Google;
  - requests that the determination of whether SaskTel should be a third Canadian aggregator be included in the ESWG's final follow-up report; and
  - requests that the determination of whether a baseline cell data accuracy criterion is required for Canada be included in the ESWG's final follow-up report.

## Policy Directions

20. In accordance with subparagraph 1(b)(i) of the 2006 Policy Direction,<sup>1</sup> the Commission considers that approval of the recommendations in Consensus report ESRE0095 will advance the policy objectives set out in paragraphs 7(g) and (h) of the

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<sup>1</sup> *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, SOR/2006-355, 14 December 2006

*Telecommunications Act* (the Act).<sup>2</sup> The report's recommendations represent a competitively neutral and symmetrical approach to implementing NG9-1-1, and specifically handset-based location technology, affecting all facilities-based WSPs.

21. Additionally, the 2019 Policy Direction<sup>3</sup> provides that when the Commission exercises its powers and performs its duties under the Act, it should consider how its decisions can promote competition, affordability, consumer interests, and innovation. Moreover, the Commission should, in its decisions, demonstrate its compliance with the 2019 Policy Direction and should specify how those decisions can, as applicable, promote competition, affordability, consumer interests, and innovation.
22. Consensus report ESRE0095 addresses technical matters relating to implementing wireless handset-based location technology, thereby improving the processing of calls for emergency services from the estimated many thousands of Canadians who use wireless devices to connect to the public switched telephone network, and improving location accuracy for such calls. The Commission considers that by (i) continuing to suspend the implementation date for Canadian handset-based location technology until after the PoC is completed, (ii) requesting that the ESWG file its final follow-up report by 16 December 2022, and (iii) requesting that the determination of whether SaskTel should be a third Canadian aggregator and that the determination of whether a baseline cell data accuracy criterion is required for Canada be included in the ESWG's final follow-up report, the Commission will better ensure the proper functioning of those systems and thereby promote consumer interests. The approval of the recommendations in the report also promotes innovation, because the Commission is exercising leadership in a coordinated nationwide approach to improving the location accuracy of 9-1-1 calls that originate from wireless devices, to the benefit first and foremost of all Canadians.

Secretary General

### **Related documents**

- *CISC Emergency Services Working Group – Consensus letter on handset-based location technology implementation for 9-1-1 in Canada – Suspension of deadlines*, Telecom Decision CRTC 2022-54, 25 February 2022
- *CISC Emergency Services Working Group – Consensus report ESRE0092 related to handset-based location implementation*, Telecom Decision CRTC 2021-210, 23 June 2021

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<sup>2</sup> The cited policy objectives are: 7(g) to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services; and 7(h) to respond to the economic and social requirements of users of telecommunications services.

<sup>3</sup> *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives to Promote Competition, Affordability, Consumer Interests and Innovation*, SOR/2019-227, 17 June 2019